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09/810,641	03/16/2001	Gwo Shin Swei	D-4062	7390

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EXAMINER	
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BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

Application Number: 09/810,641
Filing Date: March 16, 2001
Appellant(s): SWEI, GWO SHIN

Robert T. Conway
For Appellant

EXAMINER'S ANSWER

This is in response to the appeal brief filed July 26, 2004.

(1) Real Party in Interest

A statement identifying the real party in interest is contained in the brief.

(2) Related Appeals and Interferences

The brief does not contain a statement identifying the related appeals and interferences which will directly affect or be directly affected by or have a bearing on the decision in the pending appeal is contained in the brief. Therefore, it is presumed that there are none. The Board, however, may exercise its discretion to require an explicit statement as to the existence of any related appeals and interferences.

(3) Status of Claims

The statement of the status of the claims contained in the brief is correct.

(4) Status of Amendments After Final

The amendment after final rejection filed on May 11, 2004 has been entered.

(5) Summary of Invention

The summary of invention contained in the brief is correct.

(6) Issues

The appellant's statement of the issues in the brief is correct.

(7) Grouping of Claims

Appellant's brief includes a statement that claims 1-8 do not stand or fall together and provides reasons as set forth in 37 CFR 1.192(c)(7) and (c)(8).

(8) Claims Appealed

The copy of the appealed claims contained in the Appendix to the brief is correct.

(9) Prior Art of Record

5,810,650	Jost	9-1998
4,184,291	Marton	1-1980

5,309,682 Gutknecht et al. 5-1994

(10) Grounds of Rejection

The following ground(s) of rejection are applicable to the appealed claims:

Claims 1-5, and 7-8 are rejected under 35 U.S.C. 103(a). This rejection is set forth in a prior Office Action, mailed on February 24, 2004.

Claim 6 is rejected under 35 U.S.C. 103(a). This rejection is set forth in a prior Office Action, mailed on February 24, 2004.

(11) Response to Argument

Claims 1-5, and 7-8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Jost in view of Marton(US 4184291). Jost discloses an abrasive disk for use with a plurality of different suction-type apertured backup pads comprising a circular disk body having plurality of uniformly spaced perforations, over at least a portion(column 1, line 63) of the surface, with at least some of perforations overlying the apertures in the backup pad to allow the disk to be placed randomly on the backup pad while still allowing suction passageways to remain open to draw dust through the pad. The pattern of distribution of the perforations across the disk does not appear to be critical, since only perforations which lie within the annular region bounded by the intended suction pad apertures would be capable of delivering dust through the apertures, as is the case in Appellant's disk. Thus any holes located outside of this annular region are non-functional with respect to suction capability, and whether or not one places holes outside of the suction region is deemed an obvious matter of design choice to those of ordinary skill in the art. It should be stressed that Appellant, in his specification, does

not address any advantage to not having perforations outside of the suction zone, so the inference is that the appearance of the disk outside of the annular zone is not critical. In Jost, an annular zone may be arbitrarily defined, which would meet the first three limitations set forth in claim 1. Marton('291) was applied to address the limitation "wherein at least two apertures are in register with each exhaust port". Marton('291) discloses an abrasive disk for use with a sanding device comprising an array of apertures formed by screen or grid(60), which is intended to underlie the exhaust ports(24) in sanding pad(12) to allow the suction to draw dust and debris from the surface being sanded. It is clear from the drawings, notably figures 1 and 5, that the apertures(60) are considerably smaller in size than the exhaust ports to the extent that at least two apertures in the screen would be in register with each exhaust port(24), thus ensuring that adequate suction can be maintained(see also column 4, lines 47-55). To provide a hole spacing in the tool of Jost such that at least two apertures are in register with each respective exhaust port, to ensure adequate suction would have been obvious in view of Marton('291). With regard to additional characteristics 4, 5, 6 listed in Appellant's rebuttal, these features are at taught by the apertured sanding disk of Marton('291).

Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Jost in view of Marton('291) and further in view of Gutknecht et al. Gutknecht et al discloses the alternative use of hook-and-loop or adhesive fastening of an abrasive disk to a backup pad. To use a conventional hook-and-loop type or adhesive fastening means

for temporary removal or repositioning of the disk on the backup pad would have been obvious in view of Gutknecht et al.

With regard to the first three characteristics listed by Appellant in his rebuttal, the distribution of the perforations across the disk does not appear to be critical, since it is clear to those of ordinary skill in the art that only perforations which lie within the annular region bounded by the pad apertures would be capable of delivering dust through the apertures, as in Appellant's disk. Thus any holes located outside of this annular region are non-functional with respect to suction capability. In Jost, an annular zone may be arbitrarily defined, which would meet the first three limitations set forth in claim 1. Moreover, there appears to be no new or unexpected result achieved by limiting the disk apertures to an annular band, such pattern of distribution is considered an obvious variant of the disk illustrated in Jost. It is well documented in case law that the removal of structure with a consequent loss of it's function is considered an obvious matter of design choice. In re Nelson, 40 CCPA 708, 198 F.2d 837, 95USPQ 82. In this instance, the removal of non-functional suction apertures lying outside of an area encompassed by the suction passageways would have produced no new or unexpected results. Such modification, while perhaps decreasing the versatility of the disk for mounting to some backup pads, would not destroy the utility of the device in being adaptable to plural diverse apertured backup pads. Moreover, the elimination of non-functional apertures would inherently create less waste of backing material and abrasive, and would require less effort in the manufacture of the disk, and. Contrary to Appellant's remarks, the elimination of the non-functional holes located outside of an

intended suction zone does not introduce new structure, but merely restores the disk to the state it was in prior to the perforations being formed.

Gutknecht et al was cited against claim 6 to teach the expediency of using a conventional hook-and-loop fastening means for removably securing the disk to the backup pad, allowing the disk to be reused or repositioned without the need for adhesive.

For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,

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rr
October 20, 2004

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